AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method of illuminating an environment, comprising:

providing a lighting control signal for controlling at least one light of a plurality of lights disposed in a plurality of positions within the environment;

providing a control system for generating the lighting control signal;

providing a connector between the control system and the at least one light to provide a two-way data interface between the at least one light and the control system;

providing an address of the connector; and

addressing the lighting control signal to the connector as an addressed lighting control signal, wherein the at least one light, when connected to the connector, responds to the addressed lighting control signal, and wherein the addressed lighting control signal is based at least in part on data communicated from the at least one light to the control system over the two-way data interface provided by the connector.

2. (Previously Presented) A method of claim 1, wherein the connector includes a cable having a head end and a base end, wherein the base end is coupled to the control system, and wherein providing the address of the connector comprises providing an address facility at the head end of the cable.

3. (Previously Presented) A method of claim 1, wherein the at least one light includes a modular light system, wherein the connector is configured to facilitate a plugging and unplugging of the modular light system respectively into and from the connector, and wherein the modular light system, when plugged into the connector, responds to the addressed lighting control signals.

4. (Previously Presented) A method of claim 1, wherein the at least one light communicates failure data to the control system via the two-way data interface.

5. (Previously Presented) A method of claim 1, wherein the data is selected from the group consisting of control data, temperature data, performance data, performance history data, light

histogram data, intensity data, color temperature data, on-off status data, color data, time data, total-on-time data, light show data, lighting effect data, alarm data, maintenance data, power-usage data, system status data, customer-entered data, advertising data, branding data, communications data and thermal history data.

6. (Original) A method of claim 1, wherein the environment is a transportation environment.

7. (Previously Presented) A method of claim 6, wherein the environment is an aircraft cabin, further comprising providing an interface between the control system and another system.

8. (Previously Presented) A method of claim 7, further comprising:

providing a facility for shielding an element of the control system to minimize emission of interfering signals.

9. (Previously Presented) A method of claim 7, wherein the other system is at least one of a steering system, a navigation system, a safety system, a sensor system, an alarm system, a maintenance system, a communications system and an entertainment system.

10. (Previously Presented) A method of claim 1, wherein the environment contains a plurality of seats, wherein the plurality of lights are disposed to illuminate the environments of the seats.

11. (Previously Presented) A method of claim 1, wherein the environment contains a corridor, wherein the plurality of lights are disposed to illuminate at least one of the ceiling and the floor of the corridor.

12. (Previously Presented) A method of claim 1, further comprising:

controlling the at least one light based on the addressed lighting control signal so as to provide illumination including at least one of white light and non-white light.

13. (Previously Presented)A method of claim 12, wherein the at least one light includes red, green and blue light sources, wherein the illumination includes the white light, and wherein the white light is produced by a combination of radiation generated by the red, green and blue light sources.

14. (Previously Presented) A method of claim 12, wherein the at least one light includes a white light source, wherein the illumination includes the white light, and wherein the white light is generated at least in part by the white light source.

15. (Previously Presented) A method of claim 14, wherein the at least one light includes a second light source, and wherein a color temperature of the white light is determined by mixing radiation generated by the white light source and the second light source.

16. (Previously Presented) A method of claim 15, wherein the second light source is selected from the group consisting of a second white light source of a different color temperature than the first white light source, an amber source, a green source, a red source, a yellow source, an orange source, a blue source, and a UV source.

17. (Previously Presented) A method of claim 12, wherein the at least one light comprises LEDs of red, green, blue and white colors.

18. (Previously Presented)A method of claim 12, wherein the at least one light comprises LEDs selected from the group consisting of red, green, blue, UV, amber, orange and white LEDs.

19. (Previously Presented)A method of claim 18, wherein the white LEDs include white LEDs of more than one color temperature.

20. (Previously Presented)A method of claim 12, further comprising providing the data from the at least one light via onboard intelligence included in the at least one light.

21. (Previously Presented) A method of claim 20, wherein the data provided by the onboard intelligence indicates at least a partial or imminent failure of the at least one light.

22-37. (Cancelled)

38. (Previously Presented) A system, comprising:

a control system configured to generate a lighting control signal for controlling at least one light; and

a connector between the control system and the at least one light to provide a two-way data interface between the at least one light and the control system, the connector having an address associated therewith,

wherein the lighting control signal is an addressed lighting control signal that is addressed to the connector, wherein the at least one light, when connected to the connector, responds to the addressed lighting control signal, and wherein the addressed lighting control signal is based at least in part on data communicated from the at least one light to the control system over the two-way data interface provided by the connector.

39. (Previously Presented) A system of claim 38, wherein the connector comprises a cable having a head end and a base end, wherein the base end is coupled to the control system, and wherein the connector further comprises an address facility at the head end of the cable to set the address associated with the connector.

40. (Previously Presented) A system of claim 38, further comprising the at least one light, wherein the at least one light includes a modular light system, wherein the connector is configured to facilitate a plugging and unplugging of the modular light system respectively into and from the connector, and wherein the modular light system, when plugged into the connector, responds to the addressed lighting control signals.

41. (Previously Presented) A system of claim 38, wherein the data includes failure data associated with the at least one light.

42. (Previously Presented) A system of claim 38, wherein the data is selected from the group consisting of control data, temperature data, performance data, performance history data, light histogram data, intensity data, color temperature data, on-off status data, color data, time data, total-on-time data, light show data, lighting effect data, alarm data, maintenance data, power-usage data, system status data, customer-entered data, advertising data, branding data, communications data and thermal history data.

43. (Previously Presented) A system of claim 38, further comprising the at least one light, wherein the at least one light includes a plurality of lights disposed in a plurality of positions within an environment, and wherein the environment is a transportation environment.

44. (Previously Presented) A system of claim 43, wherein the environment is an aircraft cabin, further comprising providing an interface between the control system and another system.

45. (Previously Presented) A system of claim 44, further comprising:
a facility for shielding an element of the system to minimize emission of interfering signals.

46. (Previously Presented) A system of claim 44, wherein the other system is at least one of a steering system, a navigation system, a safety system, a sensor system, an alarm system, a maintenance system, a communications system and an entertainment system.

47. (Previously Presented)A system of claim 43, wherein the environment contains a plurality of seats, wherein the plurality of lights are disposed to illuminate the environments of the seats.

48. (Previously Presented) A system of claim 43, wherein the environment contains a corridor, wherein the plurality of lights are disposed to illuminate at least one of the ceiling and the floor of the corridor.

49. (Previously Presented) A system of claim 38, further comprising the at least one light, wherein the at least one light is configured to provide illumination including at least one of white light and non-white light, based on the addressed lighting control signal.

50. (Previously Presented) A system of claim 49, wherein the at least one light includes red, green and blue light sources, wherein the illumination includes the white light, and wherein the white light is produced by a combination of radiation generated by the red, green and blue light sources.

51. (Previously Presented) A system of claim 49, wherein the at least one light includes a white light source, wherein the illumination includes the white light, and wherein the white light is generated at least in part by the white light source.

52. (Previously Presented) A system of claim 51, wherein the at least one light includes a second light source, and wherein a color temperature of the white light is determined by mixing radiation generated by the white light source and the second light source.

53. (Previously Presented) A system of claim 52, wherein the second light source is selected from the group consisting of a second white light source of a different color temperature than the first white light source, an amber source, a green source, a red source, a yellow source, an orange source, a blue source, and a UV source.

54. (Previously Presented) A system of claim 49, wherein the at least one light comprises LEDs of red, green, blue and white colors.

55. (Previously Presented) A system of claim 49, wherein the at least one light comprises LEDs selected from the group consisting of red, green, blue, UV, amber, orange and white LEDs.

56. (Previously Presented) A system of claim 55, wherein the white LEDs include white LEDs of more than one color temperature.

57. (Previously Presented) A system of claim 49, wherein the at least one light comprises onboard intelligence to generate the data provided by the at least one light.

58. (Previously Presented) A system of claim 57, wherein the data generated by the onboard intelligence indicates at least a partial or imminent failure of the at least one light.

59-75. (Cancelled)

76. (Previously Presented) A method, comprising:

disposing in an environment a plurality of intelligent connectors, each intelligent connector being associated with an address;

addressing lighting data to the intelligent connectors from a control system based at least in part on the address associated with each intelligent connector; and

controlling, via the lighting data addressed to the intelligent connectors, at least one light of a plurality of lights coupled to the intelligent connectors so as to provide illumination including at least one of a white color and a non-white color, wherein:

the at least one light of the plurality of lights comprises at least one first LED configured to generate first radiation and at least one second LED configured to generate second radiation different from the first radiation;

at least a first intelligent connector of the plurality of intelligent connectors, to which the at least one light is coupled, provides a two-way data interface between the control system and the at least one light; and

the non-white color or a color temperature of the white color generated by the at least one light is determined by mixing particular amounts of the first radiation and the second radiation in response to the lighting data.

77. (Previously Presented) A method of claim 76, further comprising generating the lighting data based at least in part on data provided by the at least one light via the two-way data interface.

78. (Previously Presented) A method of claim 76, wherein the environment includes an aircraft in which the plurality of light units are disposed, wherein each intelligent connector is located proximally to a seat of an aircraft passenger, and wherein the method further comprises passing data on passenger activity through the two-way data interface.

79. (Previously Presented) A method of claim 78, further comprising communicating signals to the control system from a non-lighting system of the aircraft, wherein the control system is configured to respond to the signals from the non-lighting system to provide the lighting data.

80. (Original) A method of claim 79, wherein the non-lighting system is an entertainment system.

81. (Original) A method of claim 79, wherein the non-lighting system is a communications system.

82. (Original) A method of claim 79, wherein the non-lighting system is a safety system.

83. (Previously Presented) A method of claim 76, wherein the at least one light is an interchangeable light that is not required to recognize the address associated with the first intelligent connector.

84. (Previously Presented) A method of claim 83, wherein the at least one light includes LEDs having at least one of red, green, blue and white colors.

85. (Previously Presented) A method of claim 84, wherein the at least one light includes a white color mode and a non-white color mode.

86. (Previously Presented) A method of claim 85, wherein in the white color mode the at least one light is capable of producing different color temperatures of the white color.

87. (Previously Presented) A method of claim 84, further comprising:

providing control software for controlling the lighting data addressed to the intelligent connectors.

88. (Previously Presented) A method of claim 87, wherein the control software is configured such that the lighting data is based at least in part on information relating to the environment.

89. (Previously Presented) A system, comprising:

at least one light comprising at least one first LED configured to generate first radiation and at least one second LED configured to generate second radiation different from the first radiation;

a control system configured to generate lighting data to control the at least one light; and

at least one intelligent connector to which the at least one light is coupled, the at least one intelligent connector being associated with an address and capable of handling the lighting data that is addressed to the at least one intelligent connector from the control system, the at least one intelligent connector further providing a two-way data interface between the at least one light and the control system,

wherein the control system is configured to control the at least one light via the lighting data to provide illumination including at least one of a white color and a non-white color, and wherein the non-white color or a color temperature of the white color is determined by mixing particular amounts of the first radiation and the second radiation in response to the lighting data.

90. (Previously Presented) A system of claim 89, wherein the control system is configured to generate the lighting data based at least in part on data provided by the at least one light via the two-way data interface.

91. (Previously Presented) A system of claim 89, wherein the at least one intelligent connector is located proximally to a seat of a passenger in an aircraft.

92. (Previously Presented) A system of claim 91, wherein the control system is in communication with a non-lighting system of the aircraft, the control system being configured to respond to signals from the non-lighting system to provide the lighting data.

93. (Original) A system of claim 92, wherein the non-lighting system is an entertainment system.

94. (Original) A system of claim 92, wherein the non-lighting system is a communications system.

95. (Original) A system of claim 92, wherein the non-lighting system is a safety system.

96. (Previously Presented) A system of claim 89, wherein the at least one light is an interchangeable light that is not required to recognize the address associated with the at least one intelligent connector.

97. (Previously Presented) A system of claim 96, wherein the at least one light includes LEDs having at least one of red, green, blue and white colors.

98. (Previously Presented) A system of claim 97, wherein the at least one light includes a white color mode and a non-white color mode.

99. (Previously Presented)A system of claim 98, wherein in the white color mode the at least one light is capable of producing different color temperatures of the white color.

100. (Previously Presented) A system of claim 97, further comprising:

control software executed by the control system for controlling the lighting data addressed to the at least one intelligent connector.

101. (Previously Presented) A system of claim 100, wherein the control software is configured such that the lighting data is based at least in part on information relating to an environment in which the at least one light is disposed.